

PN - JP2003275291 A 20030930
 TI - AIR CLEANER
 AB - <P>PROBLEM TO BE SOLVED: To provide an air cleaner which features a compact size, a low electric power consumption, an easy maintenance, and a high deodorization efficiency. <P>SOLUTION: Fine water particles produced by a mist spray needle 1a are sucked by a circular end of a grounded opposing electrode 2, and are spread conically, and are sprayed. Air, passing through a region where the fine water particles are produced, is humidified. Corona discharge is generated between a discharge electrode 3 and an opposing electrode 4 by an applied high voltage, and OH free radicals are produced by passage of the humidified air through the discharged part. The OH free radicals react with an odorous substance in the passing air, and chemically decompose the odorous substance. Surplus moisture is removed at a dehumidifying part 6, and the odorous substance which is not decomposed is adsorbed on a deodorizing filter 7. When air with less amount of the odorous substance passes, the OH free radicals decompose the odorous substance adsorbed on the deodorizing filter 7 to regenerate it.
 <P>COPYRIGHT: (C)2003,JPO
 FI - A61L9/01&B; A61L9/16&D; A61L9/22; B03C3/00&H; B03C3/02&B; B03C3/16&A; B03C3/40&A; B03C3/66; F24F7/00&A
 PA - MITSUBISHI ELECTRIC CORP
 II - FURUHASHI TAKUYA; SHIGA AKIRA
 AP - JP20020088110 20020327
 PR - JP20020088110 20020327
 DT - I

© WPI / DERWENT

AN - 2004-075306 [08]
 TI - Air cleaner produces hydroxyl radical from humidified air passed through plasma generation unit and deodorizes air by reacting hydroxyl radical with odorous air
 AB - JP2003275291 NOVELTY - The air cleaner consists of a plasma generation unit with discharge and counter electrodes (3,4) in which air humidified by a grounded counter electrode (2) passes through. The corona discharge between electrodes (3,4) produces a hydroxyl (OH) radical from humidified air that reacts with odorous substances in air and deodorizes the air. A deodorizing filter (7) sucks the odorous substances and supplies the air to a dehumidifier (6).
 - USE - Air cleaner.
 - ADVANTAGE - Ozone generation is suppressed. The air is humidified uniformly, deodorizing efficiency is good and maintenance is easy due to the electrodes arrangement.
 - DESCRIPTION OF DRAWING(S) - The figure shows a perspective view of the air cleaner. (Drawing includes non-English language text).
 - spraying pipe 1
 - counter electrodes 2,4
 - discharge electrode 3
 - case 5
 - dehumidifier 6
 - deodorizing filter 7
 - (Dwg.1/8)
 IW - AIR CLEANER PRODUCE HYDROXYL RADICAL HUMIDIFY AIR PASS THROUGH PLASMA GENERATE UNIT AIR REACT HYDROXYL RADICAL ODOUR AIR
 PN - JP2003275291 A 20030930 DW200408 A61L9/22 007pp
 IC - A61L9/01 ;A61L9/16 ;A61L9/22 ;B03C3/00 ;B03C3/02 ;B03C3/16 ;B03C3/40 ;B03C3/66 ;F24F7/00
 MC - X25-H02A1 X27-E01B2
 DC - P34 P41 Q74 X25 X27
 PA - (MITQ) MITSUBISHI ELECTRIC CORP
 AP - JP20020088110 20020327
 PR - JP20020088110 20020327

3 PAJ / JPO

PN - JP2003275291 A 20030930

TI - AIR CLEANER

AB - **PROBLEM TO BE SOLVED:** To provide an air cleaner which features a compact size, a low electric power consumption, an easy maintenance, and a high deodorization efficiency.
SOLUTION: Fine water particles produced by a mist spray needle 1a are sucked by a circular end of a grounded opposing electrode 2, and are spread conically, and are sprayed. Air, passing through a region where the fine water particles are produced, is humidified. Corona discharge is generated between a discharge electrode 3 and an opposing electrode 4 by an applied high voltage, and OH free radicals are produced by passage of the humidified air through the discharged part. The OH free radicals react with an odorous substance in the passing air, and chemically decompose the odorous substance. Surplus moisture is removed at a dehumidifying part 6, and the odorous substance which is not decomposed is adsorbed on a deodorizing filter 7. When air with less amount of the odorous substance passes, the OH free radicals decompose the odorous substance adsorbed on the deodorizing filter 7 to regenerate it.

I - A61L9/22 ; A61L9/01 ; A61L9/16 ; B03C3/00 ; B03C3/02 ; B03C3/16 ; B03C3/40 ; B03C3/66 ; F24F7/00

PA - MITSUBISHI ELECTRIC CORP

IN - FURUHASHI TAKUYA; SHIGA AKIRA

ABV - 20031205

ABV - 200312

AP - JP20020088110 20020327